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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,023	12/10/2001	J. Dean Cole	31181.26	4680

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EXAMINER

PHILOGENE, PEDRO

ART UNIT	PAPER NUMBER
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3732

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/018,023	Applicant(s) COLE ET AL.	
	Examiner Pedro Philogene	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 8, 10-12, 15 and 49-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 49-52 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 10-12, 15 and 53-55 is/are rejected.
- 7) ☒ Claim(s) 3, 5, 7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,4,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Durham et al (5,032,125) in view of Hofmann et al. (5,658,287).

With respect to claim 1, Durham et al disclose a system for treating bone fracture, the system comprising: an intramedullary nail (10) defining a longitudinal opening (26), a longitudinal axis and an intersecting transverse opening (28), the transverse opening having an upper surface and a lower surface, as best seen in FIG.2; a transverse member (40) including a bone engaging portion (64) and a connection shaft (60), the connection shaft being sized to pass through the transverse opening; and a set screw (80) selective attached to the nail in the longitudinal opening and movable along the longitudinal axis to rigidly assemble the transverse member to the nail when the nail connection shaft passes through the transverse opening and the set screw is received within the opening; as set forth in column 3, lines 15-68, column 4, lines 1-68column 5, lines 1-40, and as best seen in FIGS 1-6.

It is noted that Durham et al did not teach of a second intersecting transverse opening having an upper and lower surfaces; as claimed by applicant. However, in a similar art, Hofmann et al evidences the use of an intramedullary nail having first and

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second intersecting transverse openings having upper and lower surfaces to allow transverse passage of the fixing screws.

Therefore, given the teaching of Hofmann et al, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Durham et al, as taught by Hofmann et al to provide an intramedullary nail having first and second intersecting transverse openings having upper and lower surfaces to allow transverse passage of the fixing screws.

With respect to claims 2,4, 10, Durham et al disclose all the limitations, as set forth in column 3, lines 15-68, column 4, lines 1-68, column 5, lines 1-40, and as best seen in FIGS 1-6.

Claims 11,12,15, 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Durham et al (5,032,125) in view of Hofmann et al (5,658,287 in view of Kim (5,743,908).

With respect to claims 11,12,15, 53-55, it is noted that the above combination of references did not teach of an oblique angle, as claimed by applicant. However, in a similar art, Kim evidences the use of a cam slot with cam surface that formed an oblique angle to effectively pull the bone fragment together at the fracture.

Therefore, given the teaching of Kim, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Durham/Hofmann, as taught by kim, to effectively pull the bone fragment together at the fracture.

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As to the oblique angle of about 135 degrees, it would have been obvious to one having ordinary skill in the art at the time the invention was made to reach the optimum range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Allowable Subject Matter

Claims 3,5,7,8, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 49-53 are allowed.

Response to Amendment

Applicant's arguments, see pages 8-10 of the remark, filed 2/27/04, with respect to the rejection(s) of claim(s) 1,2,4,10 under 102 (b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hofmann et al.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro Philogene whose telephone number is (703) 308-2252. The examiner can normally be reached on Monday to Friday 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P Shaver can be reached on (703) 308-2582. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pedro Philogene
May 11, 2004


PEDRO PHILOGENE
PRIMARY EXAMINER